

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number  
**WO 2004/008232 A1**

(51) International Patent Classification<sup>7</sup>: **G02F 1/025**

(21) International Application Number:  
**PCT/GB2003/002949**

(22) International Filing Date: **8 July 2003 (08.07.2003)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:  
**0216143.8 12 July 2002 (12.07.2002) GB**

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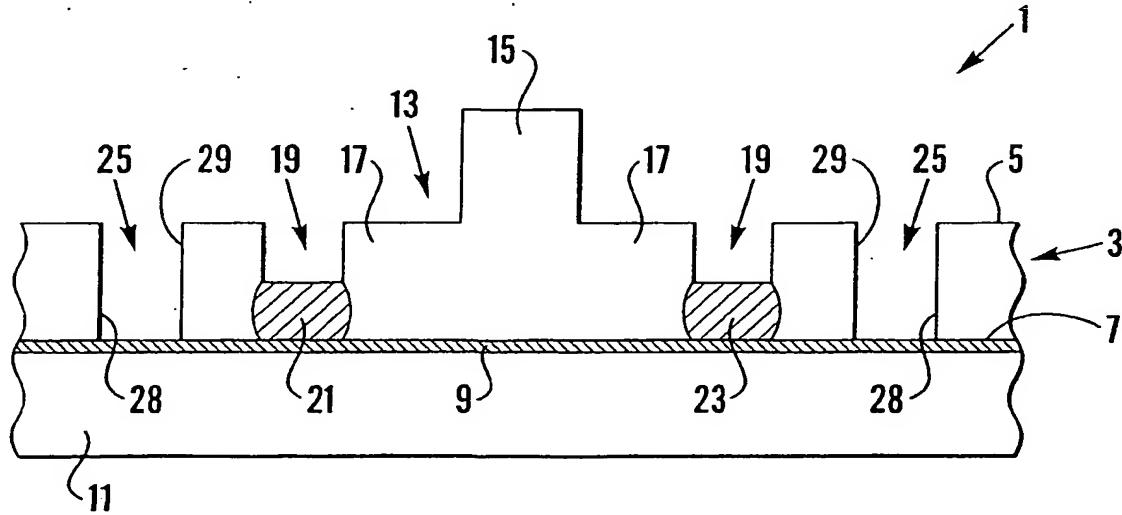
(81) Designated States (*national*): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.**

(84) Designated States (*regional*): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**

Published:  
— *with international search report*

[Continued on next page]

(54) Title: **SEMICONDUCTOR OPTICAL WAVEGUIDE DEVICE**



WO 2004/008232 A1

(57) **Abstract:** A semiconductor optical waveguide device (1) comprising a semiconductor layer (3) having an upper surface (5), and a lower surface (7) which is defined by a lower confinement layer (9), the semiconductor layer having formed therein: (a) a waveguide (13); (b) at least one recess (19) adjacent to the waveguide (13) and extending from the upper surface (5) of the semiconductor layer (3); (c) at least one doped region (21, 23), at least part of which is situated between a said recess (19) and the lower confinement layer (9); and (d) at least one trench (25) adjacent to a said doped region (21, 23) and recess (19) and situated on an opposite side thereof to the waveguide, wherein the (or each) trench (25) extends from the upper surface of the semiconductor layer (3).



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*